P.^a 14. 53

A Treatiſe

OF

WARM BEER,

Wherein is declared by many reaſons that Beer ſo qualified is farre more wholeſome then that which is drunk cold.

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205:01

To the Reader.

GAlen hath a ſaying in his ſecond book *De facultat. naturali*, in the end of his 9. chapter, and that is this; *Studium eorum laudandum eſt qui vel explanant rectè dicta à ſapientibus, vel ſupplent ſi quid omiſſum ſit ab eis*: The which I hope, gentle Reader, will be a protection for this my book againſt ſuch as think nothing well done which they do not themſelves, for that I endeavour to do both theſe things which Galen commendeth,

that is, explain ſome points heretofore writ by our learned Maſters and not regarded; and alſo to adde ſome things before not thought upon by them. And although I have no great hope by this my writing to work a generall good, becauſe errours long uſed make us both blind and deaf, be the truth never ſo apparent, not unlike the owl, as *Ariſtotle* ſaith, whoſe ſight the ſun-beams dull; yet I doubt not but ſome will take it thankfully, and making uſe will take benefit thereby, aſſuring themſelves I write nothing here, which I hold not for the truth, and have made long experience of, both by my

ſelf, and divers of my friends. I have therefore publiſhed it in our native tongue, reſpecting a generall good, referring the commendations of the thing to the proof, and us all to the Almighty. *Amen.*

The preface of the Publiſher to the Reader.

CHriſtian and beloved Reader, hearing of this enſuing Treatiſe of warm beer *lying in the hand of a worthy Gentleman and friend of mine, I made bold to ſend to him for it; who hearing of my practice according, did very kinaly ſend it to me: The which, after I had read the ſame, and conſidered the arguments brought for the proof thereof, and weighed them together with mine own experience in the uſe of it, I was thereby exceedingly*

exceedingly ſtrengthened in my judgement, and abundantly confirmed in my cuſtome. Then ſpeaking of this treatiſe and the ſubject matter thereof to ſome of mine acquaintance and friends, and what benefit I found by the uſe thereof, they deſired to ſee the ſame; and when they had read it, they intreated me that it might be printed, and that I would declare mine own experience which I had found by conſtant uſe of the ſaid warm drink, that it might be publiſhed for the generall good: to whoſe requeſt I could not but conſent. And therefore I ſhall not ſpeak any thing by way of commendations of this book, but will leave it rather to the judi-

cious Reader and true practicer thereof; and will onely relate unto you what I have found true by long experience. First, heretofore when I did alwayes drink cold beer, and now and then a cup of wine, I was very often troubled with exceeding pain in the head, which did much distemper me; also with stomach-ach, tooth-ach, cough, cold, and many other Rheumatick diseases: But since my drinking my beer (small or strong) actually hot as bloud, I have never been troubled with any of the former diseases, but have alwayes continued in very good health constantly (blessed be God) yet I use not to drink wine, because I find that hot beer (without

(without wine) keepeth the ſtomach in a continuall moderate concoction: But wine and hot beer doth over-heat the ſtomach, and inflameth the liver, (eſpecially in cold ſtomachs which have hot livers) and men oftentimes drinking wine to heat their cold ſtomachs, they thereby alſo inflame their livers, and ſo the helping of the cold ſtomach is the means of the deſtruction of the liver: But hot beer doth prevent this evil, for it heateth the ſtomach and cauſeth good digeſtion, and nouriſheth and ſtrengtheneth the liver. And that hot beer, actually made hot doth cauſe good concoction, you may conceive it by this compariſon: The ſtomach is

compared

compared to a pot boyling over the fire with meat; now if you put cold water therein it ceaseth the boyling, till the fire can overcome the coldnesse of the water, and the more water you put in, the longer it will be before it boyl again, and so long time you hinder the meat from being boyled: So it is with the stomach. If you drink cold beer, you hinder the digestion of the meat in the stomach; and the more cold you drink, the more you hinder it. Also, cold water doth not onely hinder the boyling of the meat in the pot, but also causeth the meat to be hard, so that if it should boyl six houres longer then ordinary, yet still the meat will be hard

and

and never tender and ſoft: Right ſo it is with the ſtomach. Cold beer doth not onely hinder concoction, but alſo harden the meat in the ſtomach, as you may ſee by them which drink over much cold beer at or after dinner or ſupper; ſix houres after they will vomit up the ſame meat again, as raw and undigeſted as if it were but even then eaten: which they could not have done, if they had not cooled their ſtomachs ſo much with cold beer: becauſe nature would have digeſted the meat before that time. But on the contrary, hot water put in a boyling pot with meat, hindereth not the boyling thereof, neither doth make the meat hard, but

continueth

continueth the boyling thereof, nouriſhing the meat with ſufficiency of liquour, and maketh it ſoft and tender fit to be eaten: So in like manner doth hot beer to the ſtomach: It hindereth not concoction, nor hardeneth the meat in the ſtomach, but contrariwiſe, it continueth its concoction, and maketh it fit for the nouriſhment of the whole body.

Again in the ſecond place, as this hot beer is excellent good for the keeping of the ſtomach in good order for concoction, and conſequently good health; ſo it is moſt excellent for the quenching of thirſt. For I have not known thirſt ſince I have uſed hot beer: let the weather be never ſo hot, and my work

great

great, yet have I not felt thirſt as formerly. Nay although I have eaten fiſh or fleſh never ſo ſalt, which ordinarily do cauſe thirſt and drineſſe, yet I have been freed from it by the uſe of hot beer, and have been no more thirſtie after the eating of ſalt meat then I have after freſh. And the reaſons make it manifeſt being confirmed by experience, if we conſider when a man is thirſtie, there are two maſter-qualities which do predominate in the ſtomach, namely heat and drineſſe, over their contraries, cold and moiſture. When a man drinketh cold beer to quench his thirſt, he ſetteth all foure qualities together by the ears in the ſtomach,

mach, which do with all violence oppose one another, and cause a great combustion in the stomach, breeding many distempers therein. For if heat get the mastery, it causeth inflammation through the whole body; but if cold, it surfeteth the body, and bringeth a man into fluxes and other diseases: But hot beer prevents all these dangers, and maketh friendship between all these enemies, viz. *hot and cold, wet and drie, in the stomach; because when the coldnesse of the beer is taken away by actuall heat, and made as hot as the stomach, then heat hath no opposite, his enemie cold being taken away, & there onely remains these two enemies*

mies, dry and wet in the ſto-
mach: which heat laboureth to
make friends, as you may
ſee in this example. In fire there
is heat and drineſſe: and in wa-
ter there is cold and moiſture,
which are oppoſite to the quali-
ties in the fire: Now if you
throw the cold water upon the
fire, you ſet theſe oppoſites toge-
ther by the ears, but if you would
quickly quench the fire, take hot
water and throw thereon, and
one bucket full of hot water
will quench more fire then foure
buckets of cold. The reaſon is,
becauſe of the extreme oppoſiti-
on between hot and cold: but
when the coldneſſe of the water
is taken away and it made actu-
ally hot, then hot water to hot
fire

fire agreeth as like to like, and peace being made between hot and cold, the heat maketh friendſhip between wet and dry.

Alſo you may ſee wet and dry eaſily reconciled by heat, in another example: Take a dry piece of wollen cloth, and throw it upon cold water, and you ſhall ſee how wet and dry will oppoſe one another: the water will not let the cloth ſink into it, and the dry cloth will not let the water enter into it; but the cold water will ſlide off from the dry cloth, and the cloth will ſwim upon the water: But if the water be made hot, and the cloth thrown thereon, they will immediately embrace one another without any oppoſition.

So

So likewiſe, if you put cold water upon duſt, wet and dry will ſo oppoſe each other, that the duſt will not ſuffer the water to ſink into it, but the water will trull up and down on the duſt like quick-ſilver: but if the water be hot, and put never ſo lightly upon the duſt, it will incontinently ſink into it without oppoſition. And thus you ſee by theſe examples how heat is as it were a means to make friendſhip between wet and dry. Even ſo it doth in the ſtomach: When one is exceeding thirſtie, the beer being made hot and then drunk into the dry ſtomach, it immediately quencheth the thirſt, moiſtening and refreſhing Nature abundantly.

But

But some will say, Cold beer is very pleasant to one that is thirstie: I answer it is true: But pleasant things for the most part are very dangerous. Cold beer is pleasant when extreme thirst is in the stomach, but what more dangerous to the health? How many have you known & heard of, who by drinking of a cup of cold beer in extreme thirst, have taken a surfet and killed themselves? What more pleasant then for one that hath gone up a hill in summer time and is exceeding hot, to sit down and open his breast that the cool aire may blow therein? And yet how dangerous is it? For a man in very short time, forgetting himself, taketh a sud-

den

len cold, and ſurfets thereon, which coſteth his precious life for his pleaſant aire. Therefore we muſt not drink cold beer, because it is pleaſant; but hot beer, becauſe it is profitable, eſpecially in the Citie for ſuch as have cold ſtomachs, and inclining to a conſumption. I have known ſome that have been ſo farre gone in a conſumption, that none would think in reaſon they could live a week to an end: their breath was ſhort, their ſtomach was gone, and their ſtrength failed, ſo that they were not able to walk about the room without reſting, panting and blowing: they drank many hot drinks and wines to heat their cold ſtomachs, and cure their

diſeaſes,

diſeaſes, eſpecially ſweet wines, but all in vain: for the more wine they drank to warm their ſtomachs, the more they inflamed their livers, by which means they grew worſe and worſe increaſing their diſeaſe: But when they did leave drinking all wine, and betook themſelves onely to the drinking of hot beer ſo hot as bloud, within a moneth their breath ſtomach and ſtrength was ſo increaſed, that they could walk about their garden with eaſe, and within two moneths could walk 4. miles, and within three moneths were perfectly made well as ever they were in their lives. And I doubt not but many that have practiced this thing can witneſſe the truth

truth of these as well as my self: So having performed the request of my friends to set down my experience and the reasons moving me, I leave it now to the practice of such as by themselves or their Physicians are satisfied of what use it may be to them, desiring the Lord to adde his blessing, for his glory and for their comfort. Amen.

F. W.

In commendations of WARM BEER.

WE care not what ſtern grandſires no
can ſay,
Since reaſon doth and ought to bear the ſwa
Vain grandames ſayſaws ne'r ſhall make
think,
That rotten teeth come moſt by warmed drin
No grandſir, no; if you had us'd to warm
Your mornings draughts, as I do, farre le
harm
Your raggie lungs had felt; not half ſo ſoon,
For want of teeth to chew, you'd us'd
ſpoon.
Grandame, be ſilent now, if you be wiſe,
Leſt I betray your skinking niggardize:
I wot well you no phyſick ken, nor yet
The name and nature of the vitall heat.
'T was more to ſave your fire, and fear that
Your pewter cups ſhould melt or ſmokifie,
Then skill or care of me, which made you ſwea
God wot, and ſtamp to ſee me warm my beer.
Though Grandſire growl, though grandam
ſwear, I hold
That man unwiſe that drinks his liquo
(cold.

W. B.

A Treatiſe of VVarm Drink.

Chap. I.

The uſe and neceſsitie of drink.

NOt without great judgement have the poets feigned *Prometheus* to have ntred into the heavens, and y *Pallas* help to have rought from thence celeſti- ll fire, naming one thing and timating another: nor with ſſe dexteritie of wit doth *omer* in his eighth book of *iads* call a method in wri- ng σειρὴν χρυσείην a golden hain, ſeeing that it is as im- ſſible without it to declare

any thing orderly, as to
search through all the secre
places of the *Labyrinth* with
out *Ariadnes* clue of yarn
And seeing a method doth
require his definitions, divi
sions, subdivisions, and such
like, in a brief yet ample
manner, so as nothing be su
perfluous or wanting, I will
do my good will to speak all
yet in as few words as I may
fitting my speech agreeably
to the multitude for whom
it is written, not affecting cu
riositie as a thing onely mee
for the learned.

You shall understand the
that the whole contents o
this book depend onely up
on this question; Which i
mor

more wholesome in the regiment of health, drink made actually hot by the fire, or (as it is now used) actually cold, and sometimes made cold.

First therefore I think it necessary to shew the occasion why provident Nature hath imposed a kind of necessitie of drinking upon us.

Secondly to shew and make manifest whether drink made hot doth as well or better supply those necessities, as drink being actually cold or made cold?

Thirdly to examine the reasons and confute the objections which are given for the maintenance of actuall

cold drink.

Fourthly to ſet down al ſuch diſcommodities as do and may ariſe from the uſe thereof.

Fifthly to ſhew the good and profit that redounds to the body by the uſe of actual hot drink.

Laſtly to make it manifeſt that it is no new device, but a thing which hath been in common uſe amongſt the *Romanes* and *Grecians*, and is and hath been uſed alwaies among whole nations and religions.

Underſtand then that according to the rules of phyſick, drink is uſed for three purpoſes. Firſt to allay our thirſt;

thirſt; ſecondly to intermingle with our food; thirdly to be the *vehiculum* and carrier of the nouriſhment into the univerſall bodie. Which three are comprehended under two, according to Galen, *Lib.* 1. *De uſu partium*, that is, under the allaying our deſire of drinking, and being the inſtrument and means to boil the meat in the ſtomach.

The allaying then of thirſt being the firſt cauſe why we are conſtrained to drink, let us begin with it, and examine the reaſons which may be made for the profit of the one, and the offence of the other. The which we ſhall more eaſily do, if we firſt call

to remembrance what thirſt is.

This word *Sitis*, which in engliſh ſignifieth thirſt or drought, according unto *Plato* is nothing elſe but a deſire of drink, for theſe be his words, *Sitis verò eſt concupiſcentia potionis*, Thirſt is a deſire of drink; although *Ariſtotle* in his book *De Republica* cited by *Athenæus*, ſaith, drought is a deſire of hot or cold drink, and in his book *De anima* defineth it to be the deſire of cold and moiſture. His words are theſe, *Sunt autem fames & ſitis appetitus quorum fames quidem appetitus eſt rerum calidarum & ſiccarum; ſitis verò, humorem &*

frigi-

frigus efficientium, Hunger is an appetite after hot and drying, but thirſt of things effecting moiſture and cold. Which opinion of *Ariſtotle*, being clean oppoſite unto our argument handled in this treatiſe, doth ſeem at the firſt bluſh ſo fully to manifeſt the matter, as that it may ſeem great folly to apprehend any thing which is ſo merely contradictory, and no little impudencie to oppoſe my ſelf as of my ſelf againſt ſo great a philoſopher: And therefore it concerneth me either to prove that drink actually hot doth better cool and moiſten the body then cold, or elſe *Ari-*

ſtotles meaning is not directly as his words do ſeem literally to pretend: The which I think may eaſily be apprehended and collected, if we will weigh the tenth ſection in his *Problemes*; where inquiring what the cauſe ſhould be why other creatures do ſooner prey of and eat dry meat then moiſt; but man more often moiſt then dry: He anſwereth thus, becauſe man is moſt hot, which cauſeth him to deſire to be cooled. Whereby it is to be noted, that he onely maketh mention of moiſture to cool him, the which agreeth with *Galen* in his book of unequall temperatures where he

he doth prove the occaſion of thirſt to be drought, which is remedied *per humidum*, not *per frigidum*, that is, by moiſture, not by cold. For although it cannot be denied but that heat doth procure thirſt, yet look into the reaſon, and you ſhall find it is *propter inopiam humiditatis*, becauſe it hath not his juſt proportion of moiſture; which cauſeth us in the hot time, if we labour much whereby we exceſſively ſweat, to deſire to drink, for the cauſe above alledged. But to enter into further conſideration of the matter, let us examine the reaſons why cold ſhould be

neceſſary in allaying thirſt. It appeareth to me, that it is either to the end to extinguiſh it, or to mitigate it. But extinguiſh it by any means it cannot. For let any man that is exceeding dry, eat any thing that is never ſo cold, not having any moiſture joyned with it, and he ſhall find by experience that it may well choke him, but in no ſort allay his drought. And for mitigating his drought how diſſonant it is to reaſon that drought joyned to drought, be it never ſo cold, can work that effect, let the Reader judge, being clean againſt the principles of learning; *Nam omne tale additum*

additum tali, facit id ipſum magis tale, For every like joined to its like intends more the ground of its likeneſſe, that is, the quality wherein they are alike.

Then if it be alledged that the drought having heat joyned with it, requireth cold, in reſpect of his heat, as drineſſe doth moiſture, and ſo cold joyned with moiſture doth beſt remedy both, becauſe *Contraria contrariis curantur*, contraries are cured by their contraries; yet it ſeemeth to me a matter farre unfit for two cauſes: the one, although that be *Galens* ground, yet it is not ſo to be taken literally, but

as

as it stands with that ground likewise, which is, that *Omne repentinum naturæ inimicissimum est*, All sudden alterations are contrary to nature: and therefore cold being added to heat, unlesse it were in a farre more remisse degree then the heat, doth work great inconveniences, or endanger the life; as it is to be seen in those who drinking cold drink being hot fall sick to the death. The other reason is, for that it is not possible that every man, woman or child, who being hot desire drink, can upon every motion so proportion the cold that it shall just fit the degree of heat; and then if it be

be too ſmall by his *antiperiſtaſis* it hurteth where it ſhould help: if greater then the heat requires, in ſtead of allaying the heat it utterly killeth it. For the teſtimony whereof, beſides our daily experience, there be infinite hiſtories extant; as for example, *Paulus Jovius* writeth that *Candella Scala* prince of *Verona* being hot in his armour drank out of a fountain cold water, and preſently died. He writeth alſo that the *Dolphin* of France ſonne to *Francis* the French king, then in his time being, although he were a luſtie ſtrong Gentleman, yet he being hot at tennis, and drinking cold drin

drink fell sick and died. The like happened to *Pompeius Columna* who was Vice-Roy in *Naples* for *Charles* the fifth. *Amatus Lusitanus* an excellent physician in his time, in his Centuries reherseth three histories of young men who died drinking cold water and wine, in their heat.

Chap. II.

That actuall hot drink doth quench the thirst as well as cold drink, or better.

But because I may observe a method, now we have found what thirst is to be termed according to the ancient

cient Philoſophers minds, let us according to the ſecond point prefended to be handled in this place, ſhew that hot drink doth better ſatiſfie all circumſtances neceſſarily required, then actuall cold drink.

You have therefore heard that Nature hath enforced a neceſſitie of drinking upon us for two cauſes: the one for allaying our thirſt, the other to be a means to boil, and being boiled to carry and ſpread our nouriſhment univerſally in our bodies. As touching the firſt point, thirſt being drineſſe requireth his contrary, as *Plato* ſaith in his aforenamed book, which

which is moisture for his *antidote* and help. But to prove that hot drink doth soonest perform that, I will use two arguments.

1. Whatsoever doth most speedily carry and disperse moisture into the bodie, doth best and soonest cure drinesse. But heat doth speedilliest carrie and effectuallest distribute moisture; Therefore it doth best help drinesse.

My *minor* I prove out of *Aristotle*, where he saith, *In caliditate est vis aperiendi fortissima*, In heat is a most strong force of opening. Again *Galen* in his book *de facultatibus*, knowing that heat joyned

joyned with liquour doth enforce the quicker paſſage, preſcribing a draught of water in the diſeaſe of the ſtone, commandeth that it be drunk hot: which alſo is one of the reaſons why we make our potions to purge, to be taken hot of our patients.

Our ſecond argument is this. Whatſoever moiſture being come to the place deſtinated for it doth beſt unite, and effectuallieſt enter in, doth ſooneſt work according to his nature and qualitie: But heat doth beſt unite it ſelf with heat, and ſo conduct the moiſture in: Therefore it doth moſt effectually allay our thirſt.

My

My *minor* I prove out of *Arìſtotle*, where he ſaith, *Similia ſimilibus gaudent*, that is, Like rejoyce in their like: and in his ſecond book *De generat. & interitu*, where he ſheweth that the liker things be the ſooner they paſſe into one another and unite: for ſaith he, *Quæ inter ſe cognatione continentur eorum tranſitus admodum velox eſt; quâ quidem ſi caruerint eſt tardus: propterea quòd faciliùs unum quàm multa commutatur*, Things agreeing in qualitie, their paſſage from one to another is ſwift; which agreement if they want it is ſlow: becauſe the more like the things be the ſooner they do paſſe

paſſe into one another. By which it is apparent my *minor* is true, That heat doth ſooneſt unite with heat, and ſo by conſequence hot drink beſt allayeth thirſt. And in another place he hath this ſaying, *Quæcunque ex uno in unum recedunt, eadem uno tantùm conſumpto gigni; quæcunque ex duobus ad unum pluribus labefactatis*, Things paſſing into one another by one contrariety are united, one being onely conſumed; but things paſſing into one another by two or more, are united after the corruption of more contrarieties. Which plainly demonſtrateth that drink being already made warm doth

ſooner

ſooner paſſe, enter, and allay thirſt.

As concerning the ſecond point, that is, That it doth beſt boil the meat in the ſtomach, and from thence ſerve for a generall *vehiculum*, I reaſon in this ſort.

That liquour is more fit to be uſed for boiling the meat in the ſtomach, that is more aiding to good concoction: But drink actually hot is more aſſiſting to good concoction then cold: Therefore more fit to be uſed.

My *minor* I prove in this ſort: Concoction is nothing elſe but *Alteratio nutrientis in propriam qualitatem ejus quod nutritur*, The alteration of the

the nouriſher into the quality of the thing nouriſhed: as *Galen* doth ſhew in his ſecond book *De facultat. natur. cap.* 4. and in his 3 book *De facultat. natural. cap.* 7. which alteration groweth by putrefaction: for *ex corruptione unius fit generatio alterius*, by the corruption of one thing another is generated: but this putrefaction is ſooneſt and moſt naturally performed by heat and moiſture, which both are ſupplied in warm drink: Therefore drink made actually hot, is more aſſiſting then cold. But underſtand by the way that this putrefaction is meant, not as *Galen* in ſome places taketh *putredo* to be

be *mutatio ſubſtantiæ putreſcentis corporis ad interitum ab aliena caliditate*, a change of the ſubſtance of the body putrifying to its own deſtruction by the heat of another, but it doth *corrumpere, manente ſemper ſubſtantiâ rei eâdem, mutatis ſolummodo accidentibus*, corrupt, the ſubſtance remaining ever the ſame, the accidents onely changed: but to the proof of our *minor* which is, That putrefaction is ſooneſt performed *per humidum & calidum*, and ſo conſequently better aſſiſted by warm drink then by cold, *Galen* ſaith that concoction is performed by naturall heat: which

which naturall heat is nothing but a temperate heat proportioned with moiſture: therefore my *minor* is proved. And that naturall heat is a temperate heat rightly proportioned, as I have alledged, although it be ſo manifeſt as it needs no proof, yet I will prove it by *Galens* authoritie where he ſaith, *Naturalis calor eſt recta & menſurata caliditas quæ in humido ſibi proportionato conſiſtit*, Naturall heat is an equall and well meaſured heat conſiſting in moiſture proportionable unto it: and in his ſecond book *De ratione victûs*, deſcribing what a fever is he ſaith, that an ague is *mutatio caloris*

caloris nativi in ignem, which is as much to say, as the altering of a temperate moist heat into a fiery drie burning: and *Trincavell* in his epistle *De medicina* treating of concoction of the stomach saith, that *primum & proximum internum ejus instrumentum quo ille utitur in concoquendo est suus naturalis calor, qui non est res aliqua diversa & aliena à natura & ejus substantia: & is calor est temperatus non excedens rationem naturæ illius*, rei its first immediate internall instrument, which it useth in digestion, is its own naturall heat, which is not a thing different and alien from his nature and substance; and this

this heat naturall is temperate, not exceeding the nature of the thing it ſelf.

Then as concerning the other branch of the propoſition, which is, That it is a fitter *vehiculum*, I this way prove it.

Cold drink is apt to ſtop and ſtay long in the ſtomach, and therefore not ſo fit to be a *vehiculum* and carrier, as that which doth with more facilitie paſſe: and that it doth ſo, I prove it out of *Trincavell* in his 3. book of his *Conſilia*, where giving adviſe with other phyſicians to one that had a windie ſtomach, he forbad cold water to drink, becauſe ſaith he,

being actually cold it doth tarry long in the ſtomach before it paſſeth away. But becauſe ſome perchance will ſay, it may be cold water doth ſo, but cold drink doth not, therefore heare what *Scola Salerni* ſaith of our beer. They ſay it doth *inflare & obſtruere*, breed wind and ſtoppe, and therefore unfit for a *vehiculum*: and ſo much for the point.

Chap. 3.

The reaſons and objections for the uſe of actuall cold drink are examined.

NOw as touching the third thing promiſed to

dot e handled in this book, let
mac s examine the reaſons
. Bu which are given for the uſe
e wil of actuall cold drink, and
wate firſt let us alledge ſuch au-
dot horities (if there be any) as
wha do make any way for it. I
ou remember *Plinie* in is 28.
nflan book of hiſtories, his 4. chap.
win affirmeth that it is againſt na-
efor ture for us to drink hot drink,
nd ſ because, ſaith he, *No other creature doth uſe it, nor is there any beaſt but deſires cold drink.*

Again *Bernardino Gomes* a Spaniſh phyſician in his *Enchiridion* amongſt other remedies alloweth cold drink, & made cold with ſnow, for a wholeſome remedie againſt the gout, and *morbus arthri-*

ticus, which he would no
have done if it had bee
hurtfull, or a weakner of th
stomach.

Monardus also in a treatis
he writeth of drugs tha
came from the west Indians
commends cold drink, an
affirmeth hot drink destroi
eth the liver.

It is alledged that it bet
ter quencheth thirst, that i
helps concoction, whereas
hot destroieth it.

It is alledged cold drink
is good and pleasing unto the
tast of man, and so is not
hot.

It is alledged the finest
spirits fly away in the heat-
ing, whereby it nourisheth
not

not ſo much.

That *Plinie* ſo writeth I cannot denie, but with how little conſideration of the matter let the reader judge; he uſeth no argument to maintain his opinion but onely this, *It is not fit nor good for us, becauſe bruit beaſts love it not*, which onely imitate their naturall inſtinct; and ſo doth thereby as it were inferre, that it is not naturall unto us. But how ridiculous & how unworthy a reaſon it is to be anſwered, let any man judge: for it is as much as to ſay becauſe bruit beaſts eat their food raw, therefore it is againſt nature for us to have ours roſted or ſodden:

But if I ſhould ſo ſay, I doubt not but I ſhould not be believed. And therefore as ſmall cauſe is there to believe *Plinie* in the other; for it is one and the ſelf ſame reaſon.

Secondly, whereas *Bernardino Gomes* the Spaniard in the aforenamed place, not alledging any reaſon for his opinion, might very well be anſwered without reaſon; yet becauſe it ſhall be ſeen how little credit his authority ought to carry, and of how ſmall worth it is to be eſteemed, I will endeavour to give the reaſon, why it is a mere ſenſeleſſe thing either ſo to affirm or write, unleſſe onely for the avoiding of a

further

further inconvenience, as I will hereafter declare.

First gouts and all diſeaſes of that kind depend on and grow moſt eſpecially from the weakneſſe and crudity of the ſtomach, which *Trincavell* in his 96. counſel doth make manifeſt. Theſe be his words, *Nulla particula majorẽ vim habet podagram & id genus dolores procreandi quàm ventriculus, qui vel ſuapte naturâ ſit crudior & imbecillior quàm ut poſsit rectè conficere cibum ingeſtum, vel ex incongrua victûs ratione*, No part conferres more influence to the breeding of the gout and diſeaſes of that kind then the ſtomack:

which either of its own nature is too crude and weak for to digeſt the meat, or elſe becauſe of its incongruous power and virtue.

Now to prove that the ſtomach is ſaid to be rawer when as it wants heat, and that we uſe to call that raw which wants concoction by heat, heare what *Johannes Langius Fol.* 75. writes: theſe be his words, *Quicquid à calore nativo & congenita viſcerum caloris temperatura non fuerit concoctum & elaboratum, id cùm in corporis alimentum converti nequeat, crudum appellare ſolet Hippocrates*, Whatſoever is not well concocted by the naturall and connate

connate temperature of heat in the bowells, ſeeing it cannot be changed into the nouriſhment of the body, *Hippocrates* uſeth to call it crude.

Conſider then, gentle reader, if the gout be eſpecially bred through the weaknes of the ſtomach for want of heat, how unfit a generall medicine cold water is, and what warrant *Gomes* his authoritie is for us: For although *Galen* giveth two reaſons how the gout is bred, which are *Imbecillitas articulorum, & affluxus materiei*, imbecillitie of the joynts, and abundance of groſſe humours; yet the principall is a bad ſtomach. But becauſe

I will not judge that a man in any sort learned will so much passe himself in writing, but upon some great reason moving him thereunto, I conceive he calling to mind *Galens*-words, where he saith, *Vinum potens nervosis particulis nocet*, Strong wine hurteth the sinewy parts; or peradventure *Mesues* where he saith, *Vinum per se nocet articulis & nervis*, Wine of it self hurteth the joynts and nerves; giving this reason, because *fundendo & attenuando maximo calore suo excitat fluxiones*, by running through and attenuating it doth with its most powerfull heat provoke fluxes; and living in a

plac e

place where there was nothing but ſtrong ſack, thought of two evils the leaſt was to be choſen, and knowing water could not ſo vehemently pierce and carry fluxes, as thoſe ſtrong wines, adviſed water. But if this or ſome ſuch like reaſon moved him not, I think it very abſurd for any man of learning to write, and too fooliſh for us to believe: and therefore you may underſtand that upon what occaſion ſoever *Gomes* wrote, it is no warrant for us.

Thirdly, that *Monardus* writes hot drink deſtroies the liver, and cold contrarily helps, I cannot deny; but yet

I will ſhew that in ſo ſaying he playeththe right Spaniard, who meaneth leaſt the matter that he ſeemeth to ſpeak plaineſt. For whereas in generall words he affirmeth hot drink to deſtroy the liver, he afterwards makes ſuch an exception, as I think few at this day live who be not comprehended within ſome one branch thereof: ſo that he either ſaith nothing in his generall poſition, or elſe ſo little that few there be that it concerns. And that this is true you may judge by his exception following, where he ſaith that theſe here under excepted may beſt drink their drink actually hot, *viz.*

old

old men, idle perſons, whether it be in body or mind, and that have weak ſtomachs, or abound with raw and crude humours, all that have infirmities in their lungs or pipes of reſpiration, all that have weak backs or weak kidneys, all that be ſubject to windineſſe, all youth and young children. Judge now, indifferent reader, how many live in this age, who have not ſome touch of this exception. And although he ſeems to make it currant (yea made cold with ſnow) for them which have hot livers, I pray you how many be there of thoſe that have not cold ſtomachs? And whereas

whereas he saith that cold drink cools the liver, I absolutely deny it, unless he means killing for cooling. And for proof I produce *Galen* upon one of *Hippocrates aphorismes*, where he saith, *Aquæ frigidæ occursus aut vincit nativum calorem aut colligit*; whereas hot drink by deoppilating doth eventilate it naturally, and so preserve it in temper: for I dare affirm where one hath his liver hotter then naturally fitteth without obstructions, thousands have not; which that common disease at this day *Flatus hypochondriacus* doth plainly prove: and therefore to what small purpose *Monardus*

nardus authority is, let every one judge.

Now for the fourth objection, where it is alledged that cold drink doth better quench the thirſt, I have in the beginning of this treatiſe ſo fully handled that point, that it were a frivolous thing to trouble the reader with any thing more concerning that matter; and therefore I will recite the fifth objection.

Which is, Cold beer helps concoction in the ſtomach. How untrue this is, I will plainly ſhew: All cold is an enemy to concoction: but drink not actually made hot is cold: therefore drink not actually

ally hot but cold is an enemy to concoction, and therefore helpeth it not.

My *minor* I prove out of Aristotle in the fourth book of his meteors. These be his words, *Frigus quatenus frigus est cuicunque calori concoctionique adversarium, est & cruditatis parens,* Cold in its own nature is an adversary to whatsoever heat and concoction, and is the parent of crudities: and *Galen primo Technic.* saith, *Frigidi est officium bene appetere, malè autem digerere,* It is the nature of cold to affect powerfully, but to digest poorely: And further seeing concoction is performed by warmth, it must needs

needs be decayed by often working upon cold: for mark but this infallible argument and you ſhall eaſily ſee the truth: Every agent doth alſo ſuffer it ſelf ſomething in the action, ſo as naturall heat daily and almoſt hourely expugning the cold drink taken into the body doth every time ſuffer ſomething, and ſo in ſmall time doth wax weaker and weaker. How true this is daily proof doth make manifeſt: for how many men do you ſee after they come to five or ſix and fourty years, or at the moſt fifty, troubled with the ſtone and gout, who were not before? which happeneth upon no other cauſe but

but *ob debilitatem ſtomachi*, by reaſon of the imperfect. neſſe of their ſtomach, which having long ſuffered in his daily action with the cold, is now become infirm.

Sixthly it is alledged, cold drink is pleaſing to the taſt, and ſo is not the other: which truly if it were true might ſeem a reaſonable cauſe why we ſhould (if imminent danger of inevitable hurts did not depend on the uſe of it) addict our ſelves to take it cold. But how falſe this is let *Ariſtotle* witneſſe in his 3. book *De anima*, the 10. chap. who diſputing of taſting ſaith *Eſt ipſe ſapor qui guſtu percipitur: atqui nihil abſque humiditate*

tate ſaporis efficit ſenſum, It is ſavour which is perceived by the taſt, but nothing without humidity makes any ſenſe of ſavour : and in another place, *Omne quod ipſius efficit ſenſum humiditatem aut actu aut potentiâ habet*, Every thing that maketh it ſelf ſenſible hath humidity in it actually or potentially: and in another place, *At verò cùm guſtabile ſit humidum, neceſſe eſt & inſtrumentum ſenſûs ipſius neque humidum eſſe actu, neque etiam tale ut humectari non poſsit humidúmque evadere*, But ſeeing every taſtible thing is moiſt, it is neceſſary that the inſtrument of that ſenſe be neither actually moiſt,

moiſt, neither yet ſuch as cannot be made moiſt: whereby is plainly proved that taſt conſiſts not in coldneſſe but in moiſture: And therefore it is ſaid *lapides & gemmæ carent ſapore*, ſtones and pearls have no taſt, *quia carent humiditate*: Indeed cold rather diminiſheth, then addeth any thing to taſte as may be ſeen in winter either in wine or beer being very cold: for according to *Ariſtotle* cold is rather *qualitas tangibilis quàm guſtabilis*, a tangible then guſtable quality: but if any at the firſt do not like the taſt of hot drink, it is onely for want of uſe, and that by experience

ence I find, having uſed it almoſt a year and a quarter before the writing hereof.

But as concerning the ſeventh objection, which is, that cold drink nouriſheth beſt, in reſpect that heating of the beer paſſeth away its fineſt ſpirits; I thus anſwer: Beer having ſuſtained a great boyling, thoſe ſpirits which remain in it after that boyling, will not part with ſo ſmall a heating: and of that I have made this experience; I have taken a kettle with a broad mouth and therein put three pottles of beer, & have boyled it half an houre to a gallon, and then I have ſet it in a pot with a limbech, and

I have drawn from it as much *aqua vitæ* as I could from a gallon, which was immediately put out of the barrel into the pot: which abſolutely overthrows that objection. Yet if it had not been ſo, our drink could not have received any blemiſh: for firſt it is not in any open veſſel, and ſecondly it never boyls. But ſeeing it holds in the greater, of neceſſitie it is not to be doubted in the leſſer; for *à majore ad minus* is a good argument.

But now to the eighth and laſt objection: which is, That it opens the pores too much and maketh one catch cold: Although there be little ſenſe

or

er reaſon to maintain this objection (neither indeed can I conceive any colour of reaſon) yet I will reaſon ſomething againſt it.

Nothing joyned to his like can make an extreme, but where the thing joyned is in greater degree then the thing to which it is joyned, nor can it make it greater unles it be in quantity. Therefore if naturall heat which is in the ſtomach dō not by too much opening of the pores cauſe one to catch cold, the heat of hot drink as we drink it cannot: becauſe it is as little or leſſe then the heat to which it joyneth. For were it in extreme or hotter then

naturally

naturally the ſtomach ſhould be, we could not drink it. For otherwiſe why could we not drink any thing ſcalding hot? therefore it diminiſheth none and addeth little, but preſerving all naturall warmth it can give no occaſion of offence; for if this were otherwiſe, wherefore do we commend hot broth, or eat hot meat, which in reſpect of his groſſeneſſe keeps longer hot, and likewiſe adviſe exerciſe, but becauſe naturall heat ſhould purge *animam per poros cutis & ductus convenientes*, that is, the bloud through the pores of the skin and convenient paſſages: but leave off before you heat your

your ſelf violently, and you ſhall never catch cold: for it is a violent heat doth extenuate and make way for cold. And therefore it is moſt evident that it ſuggeſts not the leaſt cauſe in the world of that inconvenience. And ſo much for this point.

Chap. IIII.

The hurt that ariſeth from the uſe of actuall cold drink.

NOw it remains that we do ſhew the hurt that cold drink doth procure, as the ſixth poſition by order to be intreated of doth require. That it helps not the body, before is proved, but

that it hurteth all and every principall part ſhall now be ſhewed. We will divide the body of man into three parts or ſections, the head and that therein contained; the breaſt and all therein contained above the *Diaphragma*; and all that is contained in the *ventre inferiore*: But cold drink hurts all theſe, therefore my firſt poſition is true, *viz.* That it hurts all the principall parts. And becauſe I will make it more manifeſt, I will particularly ſpeak of every ſeverall thing, firſt beginning with the head, and the leaſt offences: and becauſe the teeth are the firſt inſtruments we uſe in receiving our food,

I will firſt ſpeak of them. To prove that cold is an enemy to them, I produce *Hippocrates* in his firſt book and 18. Aphoriſme, where he ſaith, *Frigidum dentibus inimicum*, that is, Cold is an enemy to the teeth; where although he addes not the reaſon, yet it ſeemeth to be for two cauſes: the one, becauſe it taketh away their nouriſhment, as extinguiſhing their ſpirits; the other, becauſe it alters from their nature the nerves inſerted in the roots of the teeth: which *Ariſtotle* in his problems doth ſeem to intimate, when he ſaith that they contain but little heat *propter tenuitatem meatuum* by rea-

ſon of the narrowneſſe of the paſſages, and therefore are eaſily overcome with the coldneſſe of the bier: for you muſt underſtand that into the hollowneſſe of the teeth there come ſinews *à tertia conjugatione*, and alſo that divers ſmall veins and hairy arteries do branch in the inward part of the teeth, whereupon divers times the teeth being bored bloud iſſueth out. There is alſo inwardly a thin film or membrane, which in no ſort can indure cold, and yet will be cut or filed without feeling; becauſe the one is imparted to the uttermoſt part, the other to the root and hollowneſſe.

neſſe. If then bier in reſpect of actuall coldneſſe be ſuch an enemy to the teeth, which Nature hath provided for ſo many good purpoſes, as firſt, to divide our meat and to prepare it for our ſtomach; ſecondly, to be a means to articulate and grace our ſpeech, whereby it comes to paſſe that thoſe that want their teeth cannot bring forth R nor *S*; thirdly, to be an ornament and beauty to our face and countenance: for want of the teeth cauſeth the mouth to fall in with an undecent relapſe of the lips into the hollowneſſe of the mouth. If I ſay there were no more but this, it were ſuf-

ficient to think it too too unfit for a man to use.

But to go further, I will prove it is hurtfull to the tongue, to the jaws, to the passage which we call *œsophagus*, the high way unto the stomach, and so by that means to the brain it self: not taking this position for my defence, that cold is, and so it may be interpreted outward cold, but that the actuall cold of drink taken into the body. And this way I prove it: The tongue is made first of flesh proper and peculiar to it self, and also of a thin membrane or skin, common to the rest of the mouth, three pair of sinews, and many

ny veins, ten muſcles, and a moſt ſtrong ligament: theſe ſinews come from the third and fourth and ſeventh conjugation. *Oeſophagus*, which is the paſſage between the mouth and the ſtomach, is formed and made of two membranes proper to it ſelf, and covered with a third outwardly, *ligamentis vertebratum prognata*, ſprung from the ligament of the backbone, of divers veins and branches coming from *vena cava & coronaria ventriculi*, of divers arteries coming from *aorta*, the noble artery which feeds all the body riſing out of the midſt of the heart, and of ſinews from the

sixth conjugation called *Stomachici*; glandules likewise it hath, and two muscles. Now *Hippocrates* saith *frigidum esse inimicum nervis*, Cold is an enemy to the sinews, and to the marrow of the back, and generally to all spermatick parts, of which condition and state the brains are: If then cold be an enemy to the sinews, and the tongue, and the high way to the stomach formed of sinews; and if without the action which is performed by those sinews, there can be no perfect working, who can deny but drink taken actually cold, hurting and being an enemy to the sinews, is offensive to the tongue

tongue and thoſe other parts compounded of them? For although it cannot be denied but the muſcles ſtrike a ſtroke alſo in their motion, yet they being made *ex nervis, fibris, tendinibus, carne, vena, & arteria*, and the ſinews which are divaricated into the muſcles being *partes ſine quibus fieri non poteſt motus*, that is, parts without which there can be no motion, any offenſe committed to them muſt needs be hurtfull to all the reſt.

But ſome will ſay, Grant that this is ſo, which way do you make good that the brain ſuffereth by this?

Even this way, ſetting all

controversies aside, and not allowing *Aristotles* opinion in his 3. book *De historia animalium*, nor in his book *De somno & vigilia*, nor *De respiratione*, nor *Alexanders* opinion in his book *De anima*, nor *Averroes* in his second Colledge, nor *Avicens* doubtfull opinion which he holds *tertio de animal. pag. prima primi*; but affirming with *Hippocrates* and *Galen* that all sinews take their beginning in the brain(whether in the forepart or the hinderpart, is not here a matter pertinent) I say that offence being done to them in the mouth, so near to their root, is imparted *ad radicem*, and so

ſo conſequently to the brain: for I acknowledge two ſenſible feelings & impartments, as I may term them, in the ſinews: the one, peculiar to the part to which it doth ſerve; the other, common, and ſpread through the whole body: and by it is the brain hurt, between whom is ſuch affinitie, that the inward part of the ſinews is white and ſoft, almoſt like unto that of the brains. And therefore divers times *Riaſro de villa Franca* doth affirm it the occaſion of the Apoplexie. Again, it may be proved it breedeth a frenzy, both proper and improper, by ſtopping the paſſages of choler,

ler, whereas ſtriking up *ad ſeptum tranſverſum per nervos in ipſo diſperſos*, as *Paulus Ægineta* affirms, it inflames it, & ſo cauſeth *phrenitis ſpuria*; and divers times ſtriking up to the head *per venas & arterias*, it inflames the meninges of the brains, and ſo cauſeth an exquiſite phrenſi. Which plainly is proved by *Hippocrates*, where he ſaith in his 4. book and 17. *aphor. white Urines be dangerous*; the reaſon whereof is, becauſe choler in reſpect of thoſe obſtructions is aſcended to the head, which otherwiſe would deſcend into the paſſages thereunto deſtinated by Nature. And of this I know

know many examples, and not long ſince in *Suſſex* (where I dwell) at a place called *Marfield*, an hammerman coming in hot and drinking cold drink fell mad, and within ſhort ſpace ſo died. Furthermore although it be a ſufficient argument to prove it hurteth the eye-ſight and the hearing, becauſe it hurteth the brains; yet I will more particularly prove it. For although the body of the eye be compounded of many parts, as of ſix muſcles, ſix films or skins, three humours; yet it is alſo compounded of ſinews, veins, and arteries, which come *à jugularibus*

ribus & carotidibus, and by theſe both the viſible animal and vitall ſpirits are carried to the eyes, as may well be proved by their defect in thoſe that be dying or uſe women too much: Then thus I reaſon. Whatſoever decayeth concoction deſtroyeth all thoſe, and ſo conſequently the eye-ſight and hearing: for *Depravata concoctio in ſtomacho*, as Galen ſaith, *nunquam corrigitur in hepate neque in aliis: ſtomachus enim eſt materia omnium ægritudinum*, Bad concoction in the ſtomach is never mended in the liver, nor in any other part: for the ſtomach is the cauſe of all diſeaſes. But

But that cold drink doth ſpoil and deſtroy concoction, ſhall be proved as it cometh by order to be handled.

The hearing alſo it muſt needs offend; ſo as although ſome that have no great dulneſſe think it cannot be, for that they heare well; yet no doubt if from their infancy they had uſed the other, they might heare better. For compare his hearing that heareth beſt, and you ſhall find other creatures hear better then he. But to our purpoſe; ſeeing it is before proved that it hurteth the *organa vocalia*, that is, the mouth, the tongue, and *æſophagus*, in reſpect of the ſinews; it muſt needs follow that

that it alſo hurt the hearing. For the ſinews of the firſt conjugation do ſpread into many branches: the greater whereof go into the eare, and the membrane of the exquiſite ſenſe, & carrie all ſounds to the brain; the leſſer, to the tongue and larynx, in reſpect whereof, by reaſon of the ſympathy, the hurt of the ſinews of the tongue is imparted to the ears. Hereupon it comes to paſſe that thoſe that be dumb be alſo deaf; and thoſe which naturally be deaf, be alwaies dumb; and he that cannot heare by any outward ſound, let him hold a thing in his teeth and he will heare. Which is uſed for

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a proof amongſt excellent phyſicians, to try whether the fault be in *nervo auditorio:* though I am not ignorant that there is *Altera cauſa ſocietatis veteribus incognita, nempe canaliculus cartilagineus velut aquæ-ductus, qui à ſecundo auris meatu ad os & palatum fertur*, Another cauſe of ſociety or ſympathie between them unknown to the Ancients, to wit, a little griſtly cane, as it were a water ſpout, which ſtretcheth from the ſecond paſſage of the eare unto the mouth and palate, acknowledged by all anatomie-Maſters.

Now to paſſe downward along the throat, it is one of the

the greateſt occaſions that is of a moſt dangerous diſeaſe proper to that part, and that is the ſquinancy. For *Ætius fol.* 399. reckoning divers cauſes of that diſeaſe, uſeth theſe words, *Maximè autem frigiditas & frigidi potio magis quàm ardores plagæ, & oſſa, &c.* Eſpecially cold, and cold drink be the occaſions of that diſeaſe above all other. Where although *Ætius* giveth not the reaſon, yet I conjecture it is for two cauſes: the one, *ob conſtructionem*, and the other, becauſe it hurts and diſtempers the nerves ſerving for that part: which cauſed *Archigines* to ſay *Occultæ anguinæ cauſam eſſe*

in

in quibuſdam nervis qui ad ſtomachum deferuntur dum malè afficiuntur, That the cauſe of a ſecret ſquinancy is in the nerves which are carried unto the ſtomach, they being ill affected.

But to paſſe further, let us examine what hurt it doth to the lungs: *Arnoldus de villa nova* in his *Regimine ſanitatis*, hath this ſaying, *Generaliter malum eſt ſanis bibere multam aquam frigidam, quia extinguit calorem innatum & pectus offendit*, Generally it is evil for ſound bodies to drink much water cold, becauſe it doth extinguiſh the naturall heat, and offend the ſtomach.

Again

Again, in another place he ſaith, *Pro canna pulmonis caveant à potibus actualiter frigidis*, which is as much to ſay as, In reſpect of the pipe of the lungs beware of drinking any thing cold. Again *Paulus Ægineta* ſaith, *Frigida actu nocent pulmonibus*, Things drunk cold hurt the lungs: and *Galen* ſaith it is ſuch an enemy to the lungs and breaſt as many die thereby.

But peradventure ſome will object, that *Galen* meant of the coldneſſe of the aire, and not of the coldneſſe of drink. But to reclaim all men out of that errour, I will make it manifeſt that it

was

was meant of things actually cold taken inwardly. And therefore *Hippocrates*, ſpeaking of yce and ſnow uſed to cool wine, ſaith, it breaks veins and procures coughs; and *Galen* in his book *of good and bad nouriſhment* doth ſhew thāt he meaneth cold drink taken into the body, becauſe he doth ſeem with a certain diſtinction to grant it to ſome; yet to drink it, ſaith he, over-cold or cooled with ſnow breedeth infinite ſorts of hurt. And although ſtrong bodies do not feel it preſently in the heat of youth, yet when youth declines they begin to feel it in their joynts and other parts of

of their bodie when there is no help.

But because, as the saying is amongst Lawyers, *Lex plus laudatur, quando ratione probatur*, that is, The law is most praise-worthy when it is proved by reason, so is physick; and therefore I will shew how the drink passeth to the lungs, and how passing thither it hurts and offends; not taking any notice of *Hippocrates* in his 4. book *De morbis*, where he useth many reasons against it, nor yet of *Aristotle* who contends for the contrary. But *Hippocrates* well understood doth not contradict the truth, as in many other places he shews,

ſhews, and all other ancient Philoſophers, as *Plato*, *Philoponus*, *Locrus*, *Plutarch*, and experience it ſelf confirms. Underſtand then when I ſay drink goeth to the lungs, I mean not all the drink we take into our mouth, but ſome portion thereof: And becauſe I am to ſhew which way it paſſeth thither, therefore I think it not amiſſe to recite a place of *Galens De ſimplicium medicinarum facultatibus*, where he denieth not but ſome part of our drink doth paſſe by the rough arterie into the lungs: And in his *methodus medendi* he commands that in ulcers of the rough arterie we ſhould lye along

along on our backs, and hold the medicine in our mouthes, whereby it might by little and little go into the rough artery. *Hippocrates* in his book Περὶ καρδίης doth in plain words teach that ſome portion of our drink doth paſſe that way. Theſe be his words, *Homo, inquit, maximam partem in ventrem bibit: Gula enim ſive ſtomachus velut infundibulum potûs copiam & quæcunque volumus excipit: bibit autem & in guttur ac arteriam; minùs verò, & quantum latere poſsit per primum illapſum: operculum enim exactum operit, ut nè permiſerit quidem aliquid amplioris potûs penetrare*, For the weaſand

ſand or the ſtomach as a tunnel receivesplenty of liquour or what elſe we will; whence it comes to paſſe that a man doth drink the moſt part into his belly: but he doth alſo drink into his lung-pipe or rough artery, leſſe indeed and ſo much as can ſlide in, in the ſwallowing; for ſo exact a lidde doth cover it that it will not ſuffer any great quantity to enter. By theſe authorities now you do not onely learn that part of our drink doth paſſe to our lungs, but alſo by what paſſages, to wit, *per aſperam arteriam*, being taken in *per rimam epiglotidis*. It is therefore to be underſtood that our wind-

pipe, being called *aſpera arteria* in Latine, hath joyning to the toppe of it, next to the mouth, a certain ſtopple, as it were, formed of divers muſcles, ſinews, veins and arteries, called *Larynx* of our anatomy-Maſters, whoſe uppermoſt part hath a covering formed like a little tongue, which ſtoppeth it that nothing we eat can deſcend into the wind-pipe; for when we offer to ſwallow any food it bears upon that, and ſo ſtops it the cloſer: But when we drink, ſome little quantity of liquour ſlides in between the chink.

It may be ſome unlearned will ſay, What is this to the lungs?

lungs? I anſwer, from thence it goes to the lungs: for to omit that *aſpera arteria* is *cartilaginea ſemicirculariter*, as not appertaining to this treatiſe, I am to ſhew you how it is clothed *duabus tunicis, quarum altera interior eſt œſophago, linguæ, palato, & ori communis; altera exterior magìs tenuis: Hæc arteria ubi ad jugulum pervenit, bivio diſtracta in pulmonem, numerosâ ſerie ſpargitur inter venam arterioſam, & arteriam venoſam media*, that from that it may draw bloud, and into this tranſmit aire: And by this means doth the drink taken into the rough artery enter the lungs. Nevertheleſſe per-

adventure ſome will ſay, grant all this be true, yet why doth cold drink hurt the lungs?

I anſwer, for divers cauſes: but one effectuall cauſe here to be mentioned is, becauſe it is contrary to the temper of the lungs; for the lungs be hot, although *Hippocrates* in his book *De corde* ſeemeth to affirm the contrary: for it is but *comparativè* in reſpect of the heart. Nor do I reſpect ſome other places both of *Galen* and *Hippocrates* touching that point, and therefore here I omit them, as not appertaining to this place, affirming with ſome of our late writers the lungs

to

to be hot, being nouriſhed with the moſt aeriall and ſpirituall bloud elaborated in the right concave of the heart.

Furthermore cold drink hurts in another reſpect, for that the lungs be eaſily affected with obſtructions and phlegmatick humours: which all come *à frigida temperatura*, that is, of cold. By this may the Reader ſee how cold drink doth hurt to the lungs, that he needs not reſt ſatisfied onely becauſe *Galen* ſo ſaith, but becauſe reaſon perſwades.

Now it follows to prove it an enemy to the ſtomach; which if we do, conſidering

the ſtomach is *radix corporis*, which nouriſheth the whole body, as *Hippocrates* ſaith, I hope there is none ſo obſtinate but will adjudge it worthy the forbearing. Therefore concerning this (becauſe it falls out here in courſe to be ſpoken of) I will adde ſomething not ſpoken of before.

Underſtand then that drink actually drunk cold, is not hurtfull to the ſtomach in one reſpect onely, but in divers. Firſt, in reſpect of the compoſition of it; Secondly, in reſpect of the temper; Thirdly, in reſpect of the parts that depend upon it; Fourthly, in reſpect of our

of our life it ſelf.

In reſpect of its compoſition; becauſe it is compounded *ex tunicis, venis, arteriis, & nervis*, to which cold drink is the greateſt enemy: witneſſe *Trincavell*, in his firſt book *of his counſels, his xxxix. counſel*, where he hath this ſaying, *A cerviſia frigida prorſus abſtineto, quia maximè nocet nervis.*

2. In reſpect of its temper, becauſe naturally it ſhould be warm; as may be ſeen by the provident care of Nature, placing it *ſub Diaphragmate*, which not onely by his own proper heat, but alſo with a forrein heat borrowed from the heart, doth

warm it. It hath alſo on the right ſide, the liver; on the left ſide, the ſpleen; in the lower part, *omentum & colon inteſtinum* having plentie of fat; and in the fore part *epiploon*, with the help of *peritonæum*, and the muſcles *abdominis*, *& vena umbilicalis* are to it a covering: in the hinder part there are the muſcles of the back, and laſt of all a great branch of *vena cava* and the great artery: which all ſhew that Nature hath incompaſſed it round about, like a caldron, with fire. How fond a thing is it then to cool that which nature would have warm, and how contrary to the health of man?

Thirdly,

Thirdly, in reſpect of the parts that depend upon it, it is very prejudiciall, as ſhall be ſhewed. And firſt to begin with the head; the ſtomach never ſuffereth in any ſmall degree, but the head beareth his part alſo: ſo the offence done to the one is committed to the other. Which happeneth in reſpect of the great community of thoſe great ſinews which come *à ſexto conjugio*, from the brain unto it. That this is true, although it be ſo well known to men of learning that there needeth no proof, yet for the better ſatisfaction of the unlearned, let them but weigh theſe inſtances following.

Firſt, the ſtomach being but troubled with melancholy you ſhall ſee the brains participate of the ſame: ſo the ſtomach never ſuffereth hunger, but it doth *laceſſere cerebrum vibratis nervis*; yea, ſuch is the communion between them, that neither the one nor the other doth hardly ſuffer, but *conjunctivè*, together. For let the head be wounded, and the ſcull be broken, whereby *dura mater* is but expoſed to the aire, or let any thing but preſſe it or the brain, and preſently the ſtomach will vomit *aut flava aut æruginoſa*; becauſe the ſtomach *jure ſocietatis* is drawn *in ſympathiam per ſimilitudi-*

nem

nem & vaſorum communionem : which be the chiefeſt cauſes of ſympathy, as *Galen* in his comment *ad Sect.* 1. *lib.* 31. *Epid.* doth well note.

The heart ſuffereth likewiſe by communion, as may be ſeen *in cardiaca paſsione*, that is, ſwounding, *Syncope*, and the utter excluſion of all ſtrength; which cometh diverſe times, the mouth of the ſtomach being ill affected, as if the heart it ſelf were.

The *meſeraick* vains alſo ſuffer, being by cold ſtopped, and ſo made unable to draw as naturally they ſhould; and thereby is nouriſhment hindered. It doth for the like reſpect and cauſe hurt the liver:

liver: for, as *Galen* 1. *De Symptomatum cauſis*, doth excellently ſhew, and *Andreas Laurentius* doth notably explain, *exhauſtus partium* is chiefly neceſſary to nouriſhment, and then their ſucking and drawing. For the parts that be exhauſted ſtill draw from the next, untill they come to the laſt, which is the ſtomach: ſo that the *meſeraicks* being ſtopt, the order of the whole body is perverted, and there either remaineth no appetite, or a prepoſterous one, for want of juſt feeling: *Et hujus inſenſibilitatis cauſa*, as *Laurentius* ſaith, *eſt refrigeratio nervi, obſtructio ejuſdem, exſolutio facultatis appetentis.*

But

But ſome will ſay, let this be ſo; how prove you drink drunk actually cold doth ſtop?

To make this clear heare what *Arnoldus de villa nova* ſaith in the Treatiſe he wrote to the King of *Aragon* for the preſervation of his health; to whom upon ſome reſpects he granted both actuall and potentiall cold drink in the canicular dayes, having (as it ſeemeth) a ſtrong hot ſtomach, but adviſeth him to adde to it a little vineger: becauſe, ſaith he, to thoſe that have ſtrait *meſeraicks*, it is neceſſary: The reaſon was, becauſe without vineger it would ſtop. And in another place

place he findeth fault with drinking of cold water; becauſe, ſaith he, it is ſluggiſh, *& impedit omnem curſum*, and ſtoppeth all paſſages. *Trincavellius* alſo ſaith, cold drink hurteth all that have obſtructions and impoſtumes. Again, *Galen De locis affectis* ſaith cold doth *ſpirituum vias & curſus impedire*; and *Ariſtotle* ſaith, it doth *congelare*. *Avicen* 2. *Cautic. tract.* 1. *cap.* 4. ſaith, *eſt etiam vitandus potus aquæ in menſa*, water is to be eſchewed at the table. Whereof *Averroes* expoundeth the reaſon to be, becauſe, *priuſquam ſtomachus calefecerit, infrigïdat & incrudat*, before the ſtomach can warm

warm the meat, by cold water it is cooled and crudified. And *Galen*, knowing that cold water was ſtopping, cauſed it therefore for the ſtone to be made hot (where he would have it to deoppilate) as before is alledged.

But it may be objected; grant all this you write is true, what is this to our beer which hath endured a boyling?

I anſwer, it is more vehement againſt our beer then water unboyled: and this is the reaſon. Water which never was boyled hath in it all its aeriall parts, which be both his warmeſt and fineſt parts, and moſt penetrable; and therefore if not to be drunk

drunk when it hath them all, *à multò fortiori*, not to be drunk when they be gone. To demonſtrate that it is bereft of them in the boyling, weigh but this: Take water boyled, and water never boyled, and ſet them out in the froſty weather, and that which hath been boyled will firſt freeze: Which is becauſe its warmeſt parts are exhaled out of it.

But it may be objected, that although water will do ſo, yet the compoſition of beer hath taken that away; and therefore beer is freed from that fault.

I anſwer, ſet beer and water out, & beer will freez as ſoon as water. But let us look into the compoſition of beer: It is made

made of barley, water, and hops. Barley is cold in the firſt degree, hops hot in the ſecond: now a thing hot in the ſecond degree, put to double ſo much of a thing cold in the firſt degree, maketh but a temper: but if it did, this is nothing to the actuall cold, although it were ſomething to the potentiall: for it is the actuall cold we ſtand on. And therefore water, beer, or whatſoever it be, if it have but the poſitive degree of cold, all is one. To our purpoſe: *Arnoldus* in his regiment of health, hath theſe words, *Omnis cerviſia ex grano eſt groſſior quàm vinum, & multùm difficile ad digerendum*

dum facit oppilationes in viſceribus, &c. All beer, ſaith he, made of grain is thicker then wine, and being hard to digeſt it maketh obſtructions in the intrals: what can be more plainly ſpoken to our purpoſe? *Schola Salerni* ſaith, it doth *inflare & obſtruere*, break wind and ſtop; which is as much as we endeavour for this point to prove. And becauſe it ſhall be known that howſoever you make your beer, yet it is ſtopping of it ſelf, and therefore much the more drunk cold, note theſe diverſities, that beer made of barley onely is moſt cold; that that which is made of barley and oats leſſe nouriſheth

eth and leſſe ſtoppeth; and that that which is made with much wheat is more nouriſhing, and moſt ſtopping.

But to the laſt point, which is, Drink taken cold into the ſtomach indamageth our life; which I prove in this ſort: Whatſoever is a decay or downfall to our ſpirits, indamageth our life: But cold drink taken into the ſtomach doth ſo: Therefore cold drink taken into our ſtomach, indamageth our life.

My *minor* I prove in this ſort: Life, according to *Paracelſus*, in his book *De vita rerum*, is nothing elſe but *Spiritus*: Theſe be his words, *Vita rerum nihil aliud eſt quàm*

ſſentia

eſſentia ſpiritualis, inviſibilis ignis, impalpabilis res, ſpiritus, & ſpiritualis res, Life is nothing elſe then a ſpirituall eſſence, an inviſible fire, an impalpable thing, a ſpirit, and a ſpirituall thing: and death is no more then *inverſio virium & virtutum*, the altering and overthrow of our ſtrength: Seeing then our life is a ſpirituall thing, and ſpirits be the food and nouriſhment of ſpirits, as *Ficinus* in his book *De ſanitate tuenda* doth well obſerve, my *major* muſt neceſſarily follow, that to be a decay to the ſpirits is to abbreviate our life. My *minor*, *viz.* that cold drink taken into the ſtomach doth decay

the

the ſpirits, I prove thus. The ſpirits are ingendred of the bloud (and that *Montanus* in his Counſels doth take notice of, where he ſaith in this ſort, *Spiritus ſunt ſemper proportionati ſanguini; nihil enim aliud ſunt quàm vapor ſanguineus bene concoctus*, The ſpirits be proportioned to the bloud; for they are nothing elſe but the vapour of the bloud well digeſted) whatſoever then maketh ill bloud, maketh ill ſpirits; and whatſoever doth ſo, ſhorteneth our life: but cold drink worketh that, therefore it ſhortneth our life. My *major* is averred by *Montanus* in the place before cited: My *minor* I prove in this

this manner. God bloud is made by good concoction: but the actuall cold in the ſtomach breedeth crudity and not concoction, and that crudity conſequently ill bloud: therefore cold breeds ill bloud.

My *minor* I prove in this ſort out of *Ariſtotle, lib.* 4. *De partibus Animalium*, where he ſaith, *Calor vim habet concoquendi*, Heat hath the force to concoct; and in his ſecond book *De generatione Animalium*, where he alſo ſaith, *Frigus eſt privatio caloris*, Cold is the privation of heat: what hindereth then but the concluſion is good, That actuall cold drink breeding ill bloud cauſeth

cauſeth a defect of the ſpirits, and ſo conſequently abreviateth our life? For *Galen* in his firſt book *De humoribus*, ſaith, *Virium robur adeſſe nequit ubi crudorum humorum copia coacervata eſt*, that is, Strength can not be where ſtore of raw humours be: and in his book *De ſub. Facult. Natur.* he ſaith, all actions come from concoction.

But to make it ſomewhat plainer, I will uſe ſome more authorities. Our life (as *Galen* obſerveth) doth conſiſt in naturall heat and radicall moiſture; which is nothing elſe (as *Avicen* writeth) then an oyly unctious vapour ariſing from the bloud: to

which

which *Ariſtotle* conſenteth. This naturall heat, as *Avicen in lib. de complexionibus* writeth is diminiſhed two wayes: *Aut per reſolutionem naturalis humiditatis, aut per augmentum extraneæ*, that is, Either by decay of naturall moyſture, or by the increaſe of forrein. Now naturall moyſture doth decay either by the aire, in which we live, that drieth it up; or by labours of the body or mind ill proportioned, as he teſtifieth in his firſt book *Fenic. act.* 4. *cap.* 7. and forrein moiſture doth increaſe, either by the uſe of meats which by their own nature ingender and breed it; of which ſort are Mellons, Cucumbers, and

and ſuch like fruit, being either immoderately, or unſeaſonably eaten; or elſe of ill concoction: by means whereof ſuch an unnaturall humour doth grow in our bodies, that the outward and remote parts deprived of their nouriſhment languiſh, wither, and dy, becauſe they are not nouriſhed. Which *Iſaac de Febribus* doth well note, uſing theſe words, *Talis humor per depravatam concoctionem à natura alienus propagatur, ut externæ & remotæ corporis partes, privatæ ſuis alimentis, langueſcunt, exareſcunt & emoriuntur, quia non nutriuntur.* Hereby may the Reader diſcern in what ſort actuall cold doth offend

our life: upon great conſide-
ration therefore did *Avicen*
in his fourth book, *Canone 4*
Capitulo, De rebus quæ canici-
em retardant, uſe theſe words,
Digeſtio eſt radix generationi
naturalis & non-naturalis hu-
moris, that is, Digeſtion is the
root of the generation of na-
turall and unnaturall moy-
ſture.

But ſome ignorant perſon
will ſay, although the ſto-
mach be offended, yet the
liver may make good bloud,
if ſo be it be not diſtemper-
ed.

To the which I anſwer, No
more then a Cutler a good
blade of naughty iron, and
bad ſteel: which is not poſſi-
ble,

ble, be he never ſo good a workman. For as the iron and the ſteel, being the materiall cauſe of the blade, cannot contrary to their nature be made perfect in the workmans hand: no more can the *chylus*, firſt made in the ſtomach, being the materiall cauſe of bloud, being bad be made perfect by the help of the liver.

By this now you ſee how contrary to our health it is to uſe actuall cold drink. But let us examine what hurt it doth to other particular parts. *Hippocrates* hath theſe words in his Aphoriſmes, *Sedi, pudendis, utero, veſicæ calidum amicum, frigidum inimicum*, that

is, Heat is a friend, but cold an enemy to the ſeat, the privities, the belly and bladder: And *Cornelius Celſus* ſaith, *Frigidum inimicum inteſtinis, veſicæ, utero*, &c. that is, Cold is an enemy to the intrals, bladder, and ſtomach. So, as it appeareth, it hurteth the bladder, the bowels and the kidneys, the mother, and what not: But becauſe we will not conclude it is ſo, becauſe *Hippocrates* and *Celſus* ſay it is ſo, we will examine, firſt, the reaſon, and then experience, the beſt maſter in trying any thing.

The reaſon why it hurteth the bladder is in reſpect principally of the neck thereof, which

which being ſtopped with a muſculeous ſubſtance cold offendeth, and divers times procureth a ſtrangury. But this will be thought very untrue and unlikely, that drink drunk cold can paſſe ſo to the bladder, and there offend: but let us examine experience, and ſee whether it ever have been known ſo.

Forreſtus, an excellent Phyſician, alledgeth in himſelf the cauſe of a ſtrangury, happening unto him to the great indangering of his life, to be drinking of cold beer after his return out of Italy. And I know my ſelf a gentleman of great worſhip (who becauſe he is living ſhall not

be named) who coming from hunting hot, and drinking cold drink, ſuffered ſuch pain, as I being with him did fear ſome eroſion in the neck of the bladder. Beſides it divers times cometh to paſſe, that with cold this part ſuffering a reſolution, the party can in no wiſe hold his water, but it cometh from him without his knowledge.

To the mother alſo it is hurtfull, as *Hippocrates*, *Cornelius Celſus*, and divers learned Authours write; whereof although they give not the reaſon, yet I will ſhew it may be ſo in divers reſpects: as firſt, in reſpect of its compoſition, being made *ex tunicis*, *nervis*, *venis*,

venis, arteriis, & ligamentis, to all which cold is an enemy as hath been proved before: Secondly, in reſpect of its temper, which naturally ought to be hot, becauſe *Injectum ſemen calore multo eget ut ſuſcitetur, concipiatur, formetur et foveatur*: Thirdly, in reſpect of its vicinity with other parts, as the bowels and the bladder, between which *eſt maxima conjunctio per villos complures*, to which cold is a great enemy: Whereupon ſeldome is the mother diſeaſed, either by inflammation or otherwiſe, but either an inordinate deſire to go to the ſtool or of urine doth inſue: ſo great is the affinitie between

the *matrix*, bowels and bladders. And last of all cold is hurtfull to the *matrix* in respect of its community with the stomach; for that the stomach being hurt with cold transfers, *tanquam ad sentinam & cloacam corporis*, such abundance of superfluities to the *matrix*, as doth evert its naturall temper and strength, and is the authour of many irreparable diseases.

But some will say, that this is strange, although it be true that cold will work these effects in the mother, that beer drunk actually cold can passe to these places being so remote, and the cold can there be left or offend.

But

But to confirm it by experience, theſe inſtances I have ſeen: About the yeare of our Lord 1590. I was with a gentlewoman one Mr Clarks wife of Jarcks hill in *Kent*, in whom, labouring of a cancer in her *matrix*, I tryed this experience, that giving her beer actually cold ſhe would immediately be in the greateſt pain in the world, but give it her hot and ſhe felt none. Another woman dwelt in Houndsditch, at the ſigne of the guilded cup, ſeven years ſince, who likewiſe labouring of a cancer in the *matrix*, if you had given her cold beer, it made her be in great pain, if hot,

in nothing so much: By which it is evident that the beer did passe so cold, as that it gave a sensible feeling of the difference. And therefore it is not to be doubted but that the actuall cold was an enemy, being so much more misliked of Nature then the hot.

Now let us examine by what means drink received actually cold hurts the bowels, according as our ancient physicians write: For my own opinion, I hold it hurts them many wayes: First, in respect it breeds crudity in the stomach, whereof groweth fleam, which fleam descending into the bowels breeds

breeds intollerable collicks, and worms. Secondly, it breeds windineſſe, which likewiſe is the nurſe of extreme inconveniences incident to the bowels. Laſtly fluxes, although *non primariò tamen jure ſocietatis*, that is, not primarily yet by right of ſociety. Seeing therefore it hath been heretofore proved it is ſo generall an enemy to our health, in hurting all and ſingular our principall parts, I may well conclude with *Ariſtotle in his fourth book of Meteors*, Cold is an enemy to our nature: and ſo by conſequence drink drunk actually cold; and therefore to be eſchewed.

CHAP.

Chap. V.

The benefit that ariseth from the use of actuall hot drink.

BUt now according to our promise we will shew the great good that ariseth of hot drink: and although in laying open the defects of drink taken actually cold, there is much spoken of the good that redounds to the body by the use of hot drink; yet because according to our determinate course it comes in order to be intreated of, I shall say something not before said.

First therefore it shall be proved it helps the stomach, and by that means the head, and

and by that means the liver, and by that means the bowels, and by that means the ſplene, and by that means the kidneys and bladder, and by that means the *matrix* in women, and by that means keeps back old age, and conſequently preſerves life. And although in handling of the defects which cold beer procureth unto all theſe parts, I have ſufficiently by the hurt of the one laid open the help of the other, yet I will adde unto my firſt ſayings new reaſons, becauſe I will not be tedious to the Reader, not renewing any authorities heretofore cited, but alledging Authours of no

no lesse moment.

Galen 3. *Technic.* hath this saying, *Calidiora calidioribus indigent adjuteriis*, Things whose temper tends to warmth have need to use helps of the same nature: then thus I reason. The stomach is an office of warmth; Therefore it must needs be helped with warmth: agreeable to the which position is our beer made actually hot. Now to prove that the stomach being warm must be helped with warmth, and that it is not any way without hurt to be bereaved of his warmth, mark what *Avicen.* 3. *Tract. cap.* 5. intimateth: where writing of warmth in mans bodie

bodie,he counſelleth,nay rather forbiddeth, that no man waſh his hands in warm water:becauſe ſaith he, the heat is drawn out of the ſtomach by the warmth of the water, by which digeſtion in the ſtomach is hindered,and that being vitiated , it is a means to breed & ingender worms. Which declareth how profitable it is to put our drink hot into our ſtomach, in reſpect of keeping warmth there which by cold would be repelled: And our ancient phyſicians have been ſo jealous of decaying the warmth of the ſtomach, that they have forbidden us to ſtand near a great fire after eating,

for

for the reaſon above named. In like manner, and for the ſame cauſe, doth *Avicen* forbid a man to walk faſt after eating, *Nè calor propter motum attrahatur ad partes exteriores*, Leſt the heat by ſtirring be drawn outwardly. How much more conſonant is it therefore to reaſon to uſe warmth in the ſtomach, whereby naturall heat is increaſed, then to uſe things cold, whereby it is leſſened? And this *Hippocrates* in his Aphoriſme which begins *In hyeme multus cibus, &c.* doth make plain, who holdeth that in winter we can eat moſt meat: whereof *Galen* giving the reaſon ſaith, it is becauſe

becauſe the outward cold keeps in the heat in the ſtomach, and makes it ſtronger: And yet I remember *Arnoldus De villa nova*, makes ſuch doubt of cold, that he ſeemeth to take exceptions at *Galens* words, and ſaith, if the outward cold be great, it is neceſſary the ſtomach be well covered, naturally or artificially, or elſe it will weaken it.

But let us examine the reaſon, how helping the ſtomach it helpeth the head: which thus I prove. Whatſoever is the means whereby the head is leaſt oppreſſed with excrementitious matter, is helpfull to the head. But hot drink is ſo: Therefore hot drink, &c.

My

My *minor* I prove in this ſort: Whatſoever ſuggeſteth leaſt cauſe of unprofitable matter, is the cauſe the head is leaſt oppreſſed. But hot drink doth ſo: Therefore hot drink is helpfull. The *minor* thus I prove: Whatſoever fortifyeth concoction ſuggeſteth leaſt cauſe of unprofitable matter: But hot drink doth ſo: Therefore *&c.* The *minor* is thus proved: Whatſoever preſerves the ſtomach in naturall warmth fortifyeth concoction: But hot drink doth ſo: Therefore hot drink fortifyeth concoction. The *minor* is true: For whatſoever temperate heat joyneth it ſelf with naturall heat preſerves

ſerves the naturall heat of the ſtomach: But warm drink being temperate joyneth with the other: Therefore hot drink preſerveth the naturall heat of the ſtomach. Now it is evident that the warmth of actuall hot beer is in no extreme, but after a ſort contrary to both the extremes, and therefore temperate: For *Montanus* in his Counſels ſaith, *Mediocria temperata ſunt ad ſua extrema tanquam ad ſua contraria*, that is, Mediocrities are called temperate as well in reſpect of their extremes, as in reſpect of their contraries.

Now will I alſo prove that by helipng the ſtomach it alſo

so helps the liver, in this sort: whatsoever washeth the stomach naturally, and keeps the meseraicks open, doth help the liver: But hot drink doth so: Therefore it helps the liver. But before I prosecute the argument any further, I will shew how in performing that, it helps the liver; which it doth two wayes: First, because in washing the stomach and bowels it produceth inanition, which causeth appetite; which is a desire of new matter fit for new bloud: Secondly, because in keeping open the meseraicks it keeps the liver from any great obstructions, whereby it breeds warmth according to

to nature, and alſo brings continually good nouriſhment for the liver to work upon. And to prove this, That hot drink doth ſo, according as my *minor* requires, I produce *Arnoldus De villanova*, who writeth thus, *Aqua calida ſtomachum lavat, & ventrem purgat*, Hot water waſheth the ſtomach, and purges the belly. And that heat doth this in reſpect of its actuall heat, let *Avicen* witneſſe, who commending medicines for ulcerated lungs, wiſheth they be adminiſtred warm, becauſe of piercing; thereby acknowleding warmth to be the means of piercing.

Furthermore

Furthermore that drink actually hot, helpeth alſo the ſplene, may eaſily be proved: for that the liver receiving good nouriſhment maketh good bloud, and ſo overchargeth not the ſplene with abundance of matter to its grievance or annoyance.

Again, how by helping the ſtomach it doth good to the kidneys and bladder, I thus prove. Whereas the kidneys and bladder are ſubject to that grievous diſeaſe of the ſtone, hot drink is a means to withſtand it, by two principall effects: the one, in that it ſtrengthens nature, whereby ſhe frameth no moiſt cauſe fit to form that diſ-

eaſe;

eaſe; it being moſt principally bred by a ſlimy matter, firſt hammered in a feeble ſtomach: the other in that it doth ſo ſcoure the kidneys and uriners by his actuall heat, as there can no ſlime remain untill it can be baked to a ſtone, although the kidneys were of the hotteſt.

And that this is approved by learned men, *Arnoldus de villa nova* may be preſident; who giving compounded waters, having a ſpecificall diverting faculty of themſelves, to pierce, commandeth that they be drunk as hot as they can be indured, becauſe it addeth to their deoppilative virtue.

But

But to the other point, which is, That it helps the *matrix* : *Trincavell* calls the *matrix* of women *ſentinam corporis*; and hot drink being a means by ſtrengthening the ſtomach to make every member do his office, as before is ſhewed, cauſeth the leſſe to be tranſferred thither and ſo takes away all annoyance that may grow of any extraordinary ſuperfluitie. It is alſo a means by its deoppilating virtue to bring into naturall courſe that which is according unto nature to be avoided: And by theſe two means it is a principall occaſion to make women fruitfull: who divers times by defects

fects growing of obſtructi-
ons, and other grievances
of nature through much
ſurcharge of ſuperfluity, be-
come barren. Thus have I
given you a taſt how helping
of the ſtomach, it helps the
matrix. But for the proof of
the laſt point, which is that
it keeps back the defects of
old age, and is a means to
prolong life, let us call to
mind what old age is, and
what life; and upon what oc-
caſion the defects thereof are
haſtened or deferred. *Fici-
nus lib.* 1. *De ſanitate tuenda*
ſaith, *Vita noſtra eſt tanquam
lumen in naturali calore, calo-
ris autem pabulum eſt humor a-
erius, atque pinguis tanquam*

oleũ: ſo as *ſive humor deficiat, ſive prorſus excedat, ſive inquinetur, ſtatim calor naturalis debilitatur, & tandem debilitatus extinguitur.* And another learned man writeth thus, *Tam diu anima hanc molem incolit, quàm diu humorum defectus aut intemperies, miſeræ morborum parens, non ingruit: hinc enim ſenectus quæ debilitat animi vires mutátque colorem*, So long doth the ſoul inhabit this lump, as the defect of moiſtneſſe, or diſtemper, the miſerable parent of diſeaſes, doth not invade: for hence cometh old age, which doth debilitate the ſtrength and change the colour. And *Vives* ſaith, *Quàm diu retinetur*,

netur calor naturalis in corpore temperatus, perseverabit sanitas, & observabitur habitus juvenilis, As long as naturall heat is reteined temperate in our bodie, we continue our health, and keep the habit and shew of youth.

Now the defects of old age are commonly as follow; 1. Horinesse of hair, 2. wrinckles in the face, 3. leanesse of bodie, 4. defect of memory, 5. generall weakenesse of the whole bodie, 6. bad sight, 7. thickenesse of hearing, 8. much phlegme 9. diseases of the lungs: If then I prove cold beer hastens these, and hot beer retards and mitigates them, I hope I shall be

thought to prove my assertion.

First then let me consider whereupon the hair takes its alteration: The causes of the graineſſe of the hair are, *aut humor frigidus latens in poris*, either cold humours lurking in the pores, *aut ariditas, ut in ſegite matureſcente*, or drineſſe, as in ripe corn; *aut debilitas virtutis*, or weakneſſe; *aut corruptio pituitæ*, or corruption of the phlegme: and according unto *Ariſtotle*, *cap.* 2. *De hiſtoria animalium*, *aliquando adventus nimii caloris externi*, ſometimes the acceſſe of too much externall heat: All which to be produced by actuall cold drink, ſhall be proved ſeverally.

And

And firſt, That breeds cold humours moſt that weakens the ſtomach: But it is proved that cold drink doth ſo: and therefore it breeds them moſt.

Secondly, drineſſe it mightily procures in this reſpect; for being a means that the laudable concoction cannot be made, the parts that ſhould draw it do refuſe it as not fit for them, and ſo wither for lack, and runne into a *maraſmus*, which is a weakneſſe of all the virtues in the body; which ariſeth *ab inopia humoris*, from want of moiſture.

That it is a means that phlegme putrifies muſt ne-

ſarily follow: for *ex debili calore fit putrefactio*, from weakneſſe of heat cometh putrefaction; which that which is actuall cold procures, and ſo neceſſarily haſtens that ſymptome of old age. For care is ſaid and the much uſe of fiſh to procure hoarineſſe of hair for no other cauſe but for the reaſons aboveſaid.

Then that it procures wrinckles in the face doth conſequently follow; for that they proceed, *vel ex carne extenuata*, either from the extenuation of the fleſh; *vel ex carne vacua*, or from emptineſſe.

Leanneſſe of body follows; becauſe plenty of ſpirits is not

not bred by ill concoction.

Defect alſo of the memory; becauſe Nature fainting can not ſerve all the ſenſes, and ſo it draws nearer ſtill to the heart, neglecting the farthermoſt to maintain life: and beſides, becauſe it breeds much phlegme, an enemy to memory.

Bad eye-ſight it procures; becauſe it cauſeth defect of the ſpirits; and becauſe the body abounding with much phlegme breeds thick ſpirits, which make a dull ſight.

Thickneſſe of hearing; becauſe *ex debili calore multi torpores*, from weakneſſe of heat ariſeth heavineſſe, and this hinders the perfect-

neſſe of hearing: and becauſe it cauſeth ſcarcitie of ſpirits, which can not ſerve all the ſenſes exquiſitely.

Much phlegme, another defect of age, it cauſeth alſo; becauſe it weakens the ſtomach and ſo is *cruditatis parens*; *& ex cruditate pituita*, the parent of crudity, from whence cometh phlegme.

Diſeaſes likewiſe of the lungs; becauſe *Catharres* be the companions of ill digeſtion: and ſo what with thoſe, and what with the ſtopping of phlegme, the lungs muſt needs ſuffer. And therefore the reaſon why actuall hot drink is ſaid to mitigate all theſe, is becauſe it doth

doth *fortificare digestionem, ex qua multiplicantur spiritus vivi*, strengthen digestion, by which the vitall spirits are multiplied; which being the *pabulum* of our senses, the one can not fail while the other increaseth. And therefore *Arnoldus de villa nova* saith, *Dum spiritus & calor naturalis non debilitatur, neque pili canescunt, neque cutis corrugatur*, So long as the naturall heat is not weakened, neither doth the hair wax gray, nor the skin grow shriveled nor wrinckled. And how it is a means to preserve life shall be shewed.

CHAP. VI.

Herein is ſhewed how the Grecians and Romanes uſed hot drink.

NOw to come to the laſt point, which is, That it is no new deviſed thing, but that which hath been uſed amongſt the Grecians and Romanes in the time of their longeſt age, and is in uſe at this day in countreys where they live farre longer then we do; which ſhall be proved by divers clear teſtimonies.

And firſt to prove it was in uſe amongſt the Grecians, heare what *Philoſtinus* that excellent phyſician, wrote unto his countreymen: He counſelled

counſelled them in the ſpring and all winter to drink their liquour *calidiſsimum*, moſt hot; and in the ſummer luke-warm: ſo that at all times he ſhews that cold drink was not to be uſed.

Athenæus alſo in his eighth book, ſpeaking of *Stratonicus* the harper, ſaith he called *Rhodios, Cyrenæos branchos*, and their citie, *civitatem porcorum; quia Rhodios deliciis exſolutos, & calidum bibentes, contemplatus, albos Cyrenæos nuncupabat, Rhodiúmque oppidum, civitatem porcorum: Rhodios quidem à Cyrenæis colore diverſos autumans, at ob luxûs ſimilitudinem, & proclivitatem eandem*

in

in voluptates, cum porcis urbem illorum comparans.

Moreover *Julius Pollux* in his *Onomastico* propounds this question, Whether the ancient Fathers drank their water hot? and concludes they did: And *Lucianus* in his *Asino* writes that the Grecians used their drink hot; which *Arrianus* likewise in his controversies proves. *Apuleus* maketh the same manifest, speaking of *Fotis* in this manner; *Ecce Fotis, mea jam domina, cubitu reddita, jactâ proximè rosâ sertâ & rosâ solutâ in sinu uberante, ac me pressim deosculato & corollis revincto, ac flore prospersо, arripit poculum ac de-*

super

ſuper aquâ calidâ injectâ porrigit ut biberem, &c.

But for further proof, I will prove it both by ancient writers of proſe, and alſo poets, that the Romanes uſed it.

And firſt *Varro*, in defining this word *Calix* by the Etymologie, ſaith it comes of the Latine word *Calidus*, becauſe in it, *Calidus apponebatur potus*, Hot drink was ſerved.

Paulus likewiſe the lawyer, ſpeaking of the difference between the veſſels that they heated water in, ſaith there is no great difference between *Cacabus* and *Ahenum*; for in the firſt they boil their meat, and in the other

other their water to drink: And *Julius Pollux* in his 9. book, calleth that vessel *Abenum* where they boiled their water to drink.

Seneca in his first book *De ira* maketh mention of hot water, the which was in use to be drunk in his time: And in his second book the 25. chapter. *Dion* likewise in his 57. book proveth the same in the history of *Drusius*, son to *Tiberius*: And in his 59. book, intreating of *Caius Caligula*, who killed an host for selling hot water in the time of the funerall of *Drusius*, as a man irreligious to sell hot water for delicious drinking in time of common mourning.

mourning. Moreover *Marcellinus* in his 28. book ſhews that all taverns were forbid to ſell any hot water or wine untill foure a clock in the afternoon.

Again *Cornelius Tacitus*, writing of the poyſoning of *Britannicus*, ſhews how the means they wrought to poyſon him without ſuſpicion was, to bring his drink ſo hot that he called for cold water to allay it, wherein they had put the poyſon.

Plinie alſo in his 7. book, ſpeaking of *Marcus Aſinius* maketh it manifeſt: for, ſaith he, the drink being too hot, he held it in his hand to cool, untill one ſitting next to him

remembred

remembred him of it, and ſaid it would be too cold.

Now to prove it by the authorities of poets, I will firſt begin with *Plautus*, who in his comedy of *The vaunting ſouldier*, ſaith, Lu. *Neque ille hic calidum exbibit in prandium.* Pa. *Neque tu bibiſti?* Lu. *Dii me perdant ſi bibi, Si bibere potui.* Pa. *Quî jam?* Lu. *Quia enim abſorbui; Nam nimis calebat, amburebat gutturem*; that is, *Lu.* Neither did he drink hot wine to his dinner. *Pa.* Nor thou? *Lu.* As god ſhall help me, I neither drank, neither could I. *Pa.* What then? *Lu.* I ſupped it; For it was ſo hot it burnt my throat. What can be

be more plain then this?

Again the ſame Authour in another comedy brings forth *Labrax* ſpeaking to *Neptune* in theſe words: La. *Edepol, Neptune, es balneator frigidus, Cum veſtimentis poſteaquam abs te abii algeo. Nec Thermopolium quidem ullum ille inſtruit, Ità ſalſa præbet potionem & frigidam*: that is, La. Truly, Neptune, thou art a cold bath-keeper, Since I came from thee I freeze in my clothes. Neither doth he keep any hotwater-ſhop, He gives us ſo ſalt and cold a potion. The like ſayings be many in *Plautus* which for brevity ſake I omit.

Horace alſo when he writes

to

to *Telephus*, in his third book of his Odes hath this saying,

Quo chium pretio cadum
Mercemur: quis aquam tem-
peret ignibus:
For Chian wine what men exact:
Who'll our water to warmth redact.

And *Juvenal* in his fifth Satyr hath this saying,

—Quando ad te pervenit ille,
Quando vocatus adest calidæ
gelidæque minister.
When will anon anon Sir come,
For hot and cold to have custome.

Likewise *Martial*, in his verses he made to *Sextilianus* the great drinker, saith thus, *Jam*

Jam defeciſſet portantes calda miniſtros,
Si non potares, Sextiliane, merum.

They had lackt hot water by this time,
Had not Sextilian drunk wine.

And in his ſecond book of Epigrams theſe be his words:

Te conviva leget mixto quincunce, ſed antè
Incipiat poſitus quàm tepuiſſe calix:

The toſſe pot will thee reade but that muſt be
Onely untill his hot cup cool'd he ſee.

And in his 8. book againſt *Cæcilianus*, theſe be his words:

Curre

Curre agè & illotos revoca, Caliſte, miniſtros,
Sternantur lecti, Cæciliane, ſede.
Caldam poſcis aquam, ſed nondum frigida venit:
Alget adhuc nudo clauſa culina foco.

Runne, call thy unwaſh't ſervants, ſit
Your couches, Cæcilian ſit.
Thou call'ſt, No hot water within?
Nor cold yet in our cold kitchin.

And in his laſt book, theſe be his words:

Frigida non deſit, non deerit calda petenti;
Sed tu moroſa ludere parce ſiti.

Ye

Ye want not cold nor ſhall
ye hot;
But ſpare to pleaſe your
dainty throat.

By theſe authorities I hope I have made it plain, that it was uſed many hundred years amongſt the Romanes. For if we conſider the age that *Plautus* lived in, which was ſome five hundred and ſeventy years after the building of Rome; and the poyſoning of *Britannicus* in *Nero's* time, you ſhall find it to be 808. years after Rome was built: and *Martial* lived under *Domitianus*, 835. years after Rome was built, which was more then 300. years. Neither did *Plautus* write

write it as new deviſe, but as a thing long before in uſe.

Now to the other point, That it is uſed at this day amongſt whole nations, I will prove by *Grovani Petro Maffei* the Jeſuite, who in his 6. book of hiſtories writes that they of *China* do for the moſt part drink the ſtrained liquour of an herb called *Chia* hot. And *Perſino* the Italian writes, that he ſaw himſelf *tres principes Grapponenſes*, which came to kiſſe Pope Gregorie the thirteenths foot (and it is but a little while ſince) who drank nothing but hot water, affirming it to be the cuſtome of their countrey.

Thus

Thus have I according to my promiſe handled ſeverally all the points promiſed in the beginning: if not to thy ſatisfaction, impute that to my want of reading, not to the truth of the cauſe, which divers times is overthrown with ill handling.

FINIS.